

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number  
**WO 2005/050151 A1**

(51) International Patent Classification<sup>7</sup>:

**G01K 7/13**

(21) International Application Number:

PCT/US2003/033711

(22) International Filing Date: 23 October 2003 (23.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant (for all designated States except US): **SHERWOOD SERVICES AG [CH/CH]**; Bahnhofstr. 29, CH-8200 Schaffhausen (CH).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BLAHA, Derek, M.** [US/US]; 1800 Fountain Court, Longmont, CO 80503 (US).

(74) Agents: **DENNINGER, Douglas, E.** et al.; Tyco Health-care Group LP, 150 Glover Avenue, Norwalk, CT 06850 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

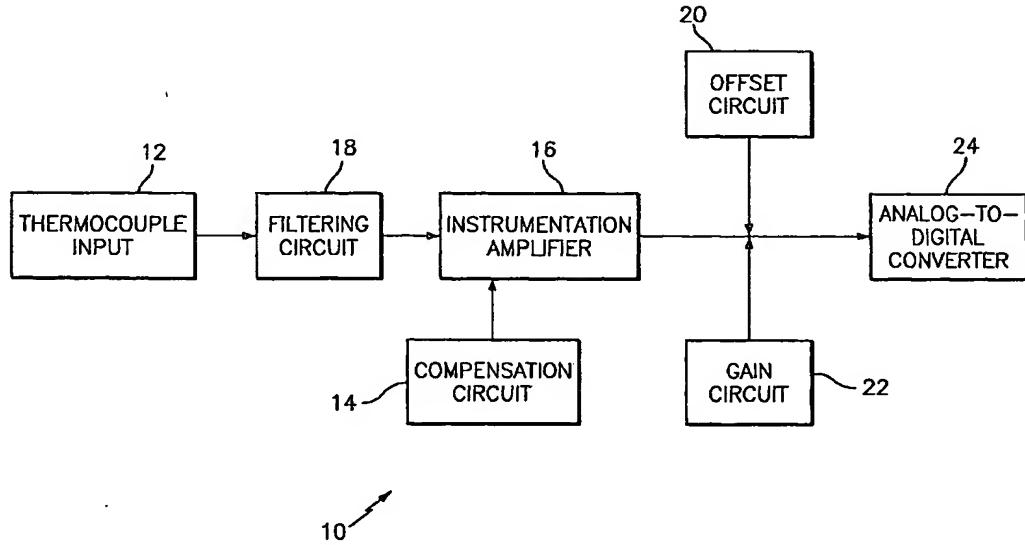
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THERMOCOUPLE MEASUREMENT CIRCUIT



(57) Abstract: A thermocouple measuring circuit for sensing a temperature at a measuring point is provided. The thermocouple measurement circuit (12) includes a thermocouple input for sensing a temperature at a measuring point, a compensation circuit (14) for compensating thermocouple effects of junctions of the thermocouple, and an instrumentation amplifier (16) for summing an output of the thermocouple and an output of the compensation circuit and outputting a voltage indicative of the temperature sensed, wherein the output of the compensation circuit is a reference voltage for the output of the instrumentation amplifier. Various embodiments of the thermocouple measurement circuit may be employed in electrosurgical generators for controlling output power dependent on temperature conditions.

WO 2005/050151 A1